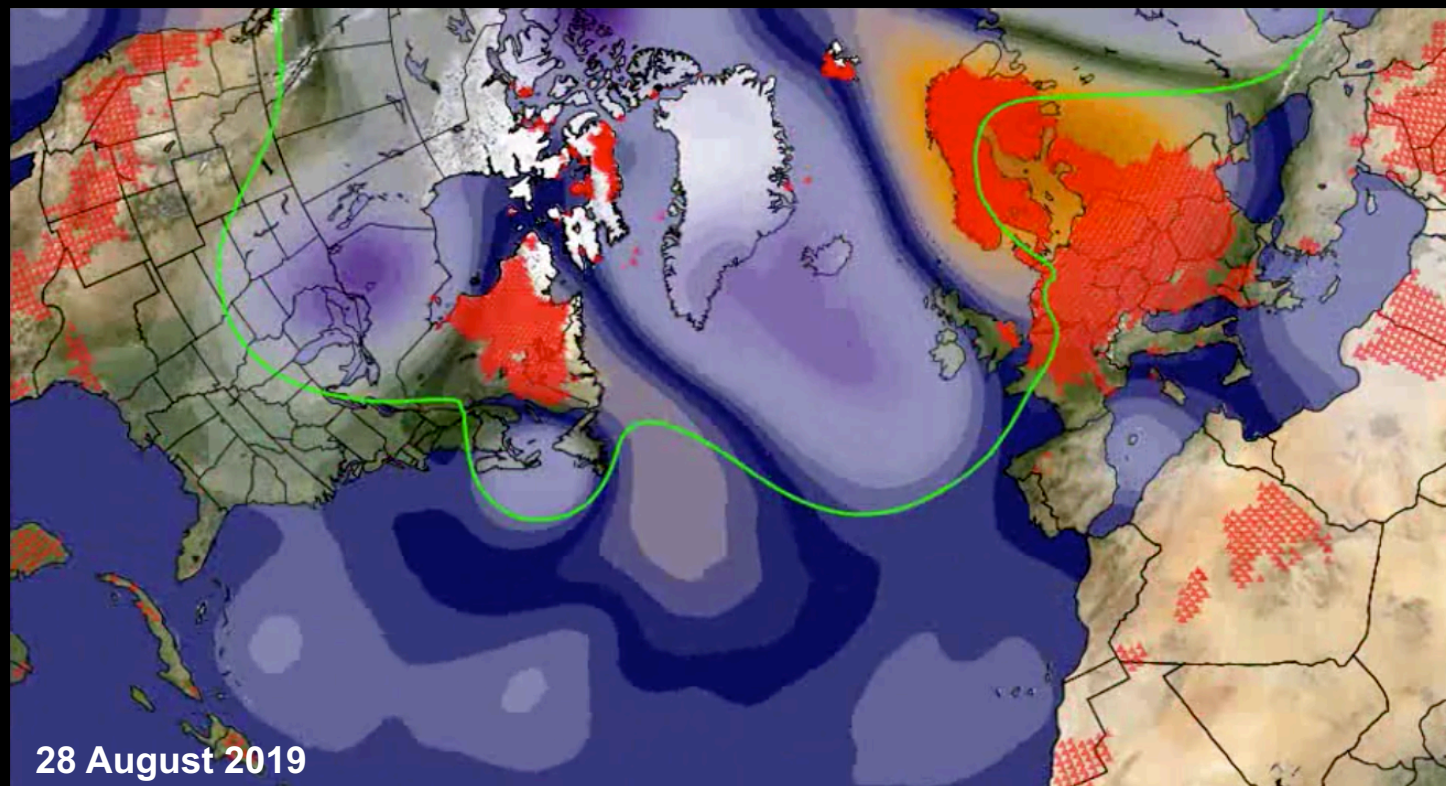


American and European Heatwaves During Summer 2019



500 hPa Height Zonal Anomaly [dam]



A strong area of high heights, demonstrated by the orange shading, can prevent zonal flow, a phenomenon commonly referred to as blocking, and allow for a build-up of heat.

Excessive “waviness” in the atmospheric circulation contributed to the persistence of heatwaves throughout the summer, particularly over Europe.

This figure shows daily mean zonal anomaly in 500 hPa height (shading), daily mean 500 hPa height equal to 580 dam (green contour), and grid boxes where a heat wave was detected (red triangles) on 28 August 2019. Note the prevalence of heatwaves over Europe coinciding with an omega shaped contour in 500 hPa height and a strong zonal anomaly in 500 hPa height.